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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/565,276

Filing Date: January 20, 2006

Appellant(s): GEHLEN ET AL.

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Donald J. Daley  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed December 22, 2008 appealing from the  
Office action mailed June 18, 2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

Krivoshein (U.S. Patent Number: 6,449,715)

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Krivoshein (U.S. Patent Number: 6,449,715).

**As to dependent claim 1**, Krivoshein discloses a coupling apparatus for data buses (e.g., process control system 10) (see Figure 1), comprising:  
a first connecting device (e.g., Profibus device network 34) for a first data bus (e.g., Profibus) (see Col. 8, Lines 20-23);

a second connecting device (e.g., AS-Interface device network 36) for a second data bus (e.g., AS-Interface) (see Col. 10, Lines 7-10), as additional to the first connecting device (e.g., Profibus device network 34) (see Col. 7, Lines 42-47);

a data processing device (e.g., controller 12) (see Figure 1), connected to the first (e.g., Profibus device network 34) and the second (e.g., AS-Interface device network 36) connecting device to allow data to be interchanged between the data buses (see Col. 7, Lines 42-47); and

a third connecting device (e.g., Fieldbus device network 30), connected to the data processing device (e.g., controller 12) (see Figure 1), for a third data bus (e.g., Fieldbus) (see Col. 7, Lines 57-61), as additional to the first (e.g., Profibus device network 34) and second (e.g., AS-Interface device network 36) data buses (see Col. 7, Lines 42-47), to allow data to be interchanged between the three data buses (see Col. 7, Lines 42-47), wherein the second data bus is a different type of bus system (e.g., AS-Interface device network 36) than the first data bus (e.g., Profibus device network 34), and the third data bus is a different type of bus system (e.g., Fieldbus device network 30) than the first data bus (e.g., Profibus device network 34) and the second data bus (e.g., AS-Interface device network 36) (see Col. 7, Lines 42-47).

**As to dependent claim 2**, Krivoshein teaches the coupling apparatus as claimed in claim 1, wherein the coupling apparatus is configurable (e.g., configuration system for use in a process control network) (see Abstract).

**As to dependent claim 3**, Krivoshein teaches the coupling apparatus as claimed in claim 2, wherein the coupling apparatus is configurable in such a way that the data

transfer between at least two of the data buses is controllable as a function of the semantics of the data to be transmitted (e.g., protocol) (see Abstract).

**As to dependent claim 4**, Krivoshein teaches the coupling apparatus as claimed in claim 1, wherein the first data bus is a Profibus (e.g., Profibus) (see Col. 8, Lines 20-23).

**As to dependent claim 5**, Krivoshein teaches the coupling apparatus as claimed in claim 1, wherein the second data bus is an AS-i bus (e.g., AS-Interface) (see Col. 10, Lines 7-10).

**As to dependent claim 6**, Krivoshein teaches the coupling apparatus as claimed in claim 1, wherein at least one of input and output modules are connectable to the third data bus and are linkable to at least one of the first and the second data bus with the aid of the coupling apparatus (e.g., I/O configurator) (see Figure 2).

**As to dependent claim 7**, Krivoshein teaches the coupling apparatus as claimed in claim 1, including a monitor with a configuration capability (e.g., screen displays used by the configuration system of Figure 2 to enable input) (see Figures 6-25).

**As to dependent claim 8**, Krivoshein teaches the coupling apparatus as claimed in claim 2, wherein the first data bus is a Profibus (e.g., Profibus) (see Col. 8, Lines 20-23).

**As to dependent claim 9**, Krivoshein teaches the coupling apparatus as claimed in claim 2, wherein the second data bus is an AS-i bus (e.g., AS-Interface) (see Col. 10, Lines 7-10).

**As to dependent claim 10,** Krivoshein teaches the coupling apparatus as claimed in claim 3, wherein the first data bus is a Profibus (e.g., Profibus) (see Col. 8, Lines 20-23).

**As to dependent claim 11,** Krivoshein teaches the coupling apparatus as claimed in claim 3, wherein the second data bus is an AS-i bus (e.g., AS-Interface) (see Col. 10, Lines 7-10).

**As to dependent claim 12,** Krivoshein teaches the coupling apparatus as claimed in claim 4, wherein the second data bus is an AS-i bus (e.g., AS-Interface) (see Col. 10, Lines 7-10).

**As to dependent claim 13,** Krivoshein teaches the coupling apparatus as claimed in claim 2, wherein input/output modules are connectable to the third data bus and are linkable to at least one of the first and the second data bus with the aid of the coupling apparatus (e.g., I/O configurator) (see Figure 2).

**As to dependent claim 14,** Krivoshein teaches the coupling apparatus as claimed in claim 1, including a monitor with a configuration capability (e.g., screen displays used by the configuration system of Figure 2 to enable input) (see Figures 6-25).

#### **(10) Response to Argument**

ISSUE:        WHETHER CLAIMS 1-14 ARE ANTICIPATED UNDER 35 U.S.C. 102(e) Krivoshein.

**Appellant's Argument 1:**

Particularly with respect to the portions of Krivoshein referenced in the current Office Action {e.g., at page 3), column 7, lines 42-47 state:

The controller 12 is coupled to numerous field devices within different device networks, including a Fieldbus device network 30, a HART device network 32, a Profibus device network 34 and an AS- Interface device network 36 via local connections or lines.

The Examiner interprets this portion of Krivoshein as disclosing the ability to exchange data between the different buses. But, at most, the cited portion of Krivoshein merely discloses that the controller is coupled to each of these device networks. The mere fact that the controller 12 is coupled to the device networks does not teach (either implicitly or explicitly) that the controller 12 enables the device networks to exchange data with one another. Indeed, in the context of Krivoshein, the controller 12 is coupled to each of the different device networks so as to separately control them, not to allow data to be exchanged between the device networks.

**Examiner's Response 1:**

Firstly, as claimed, the prior art anticipates a device “to allow data to be interchanged between the three data buses.” The controller discussed in Krivoshein above clearly “allows” data to be interchanged and is further supported by prior art Figure 1 showing controller 12 coupled to numerous field devices within different data buses, including a Fieldbus device network 30, a HART device network 32, a Profibus device network 34 and an AS- Interface device network 36 (see Figure 1; and Col. 7, Lines 42-47).

Secondly, appellant's arguments are narrower in scope than presented as claim limitations. Appellant argues data to be "exchanged," but claims data to be "interchanged." A common meaning of interchanged data is data that is common or shared. The prior art clearly discloses data to be interchanged (i.e., common, shared) between buses.

In addition, the controller is one example of a way to allow interchange of data in Krivoshein's disclosed system, as explained in the previous office action. Additional examples of a device to allow data to be interchanged between three data buses in Krivoshein's system include I/O Configurator 76 and Configuration Database 72 as shown in Krivoshein's prior art Figure 2 (it is noted that this configuration is the same as shown in appellant's Figure 6 Configuration 15 in the instant application) and Col. 16, Lines 1-11 of Krivoshein.

And finally, appellant's independent claim is an apparatus claim, and patentability of apparatus claims depends on the structure, not on the use or purpose of that structure; see Catalina, 62 USPQ2d at 1785. Apparatus claims must be structurally distinguishable from the prior art; see MPEP 2114. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also In re Swinehart, 439 F.2d 210, 212-13, 169

USPQ 226, 228-29 (CCPA 1971); *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). “[A]pparatus claims cover what a device is, not what a device does.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original). As explained in the rejection above, *Krivoshein* clearly shows first, second, and third connecting devices and a data processing device, as recited in the instant claims.

**Appellant's Argument 2:**

The protocol mentioned in the Abstract of *Krivoshein* is not the same as the “semantics,” of claim 3. For example, Appellants’ Substitute Specification at least at paragraph page 2, line 30 - page 3, line 5 discloses that the coupling apparatus may be configured in such a way that the data transfer between two or three of the data buses may be controlled as a function of the semantics of the data to be transmitted, for example, it may be possible to configure the transmission of standard data differently to that for the transmission of safety-relevant or security-relevant data. Accordingly, example embodiments allow for the transfer of data to be controlled based on the semantics of the data, e.g., the type of data to be transferred.

**Examiner's Response 2:**

The claims and only the claims form the metes and bounds of the invention. Limitations contained in the specification cannot be read into the claims for the purpose of avoiding the prior art; see *In re Sprock*, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687 (1968). It is noted that claim 3 as recited does not require the claimed semantics to be

"safety-relevant" or "security-relevant", as argued in the Appeal Brief. Krivoshein clearly teaches semantics of the data, e.g., the type of data to be transferred. See for examples, Column 10 Lines 1-6, Column 14 Lines 1-4, and Column 21 Lines 24-27.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Tejal Gami/  
Patent Examiner  
Art Unit 2121

April 7, 2009

Conferees:

/Kakali Chaki/

Kakali Chaki

Quality Assurance Specialist, TC2100

Kamini Shah

/Kamini S Shah/  
Supervisory Patent Examiner, Art Unit 2128

Application/Control Number: 10/565,276  
Art Unit: 2121

Page 11